

REMARKS/ARGUMENTS

In the Office Action, the Examiner rejected Claims 1 to 3 under 35 U.S.C. §102(b) as being anticipated by Candida et al. (U.S. Patent 4,897,274). The Examiner stated that

“Candida et al. disclose a five-layer film comprising outer layers of very low density linear polyethylene having 10 to 20 wt % percent octene (claim 2, component (a(i))), intermediate layers of modified EVA or resins used for skin layer or outer layers (column 2, lines 50-60) and core layer of butydyene/styrene copolymer (claim 2, component (b)). Candida et al. also disclose a multi-layer can be a heat-shrinkable film (column 2, lines 64-68).”

A review of Candida et al. shows that the inventions described therein are directed to specific multi-layer films for cheese packaging. The films are formulated in order to allow a certain permeability to moisture and gases in order to permit a controlled absorption and removal thereof whereby a desirable finishing process of the cheese can take place. (column 1, lines 20-23.) The permeability properties are specifically balanced for such an application. Lower permeabilities would not allow the package to “breathe” while higher permeabilities are “disadvantageous” in that they can result in too much dried cheese of poor quality. On the other hand, permeability values below the indicated lower limit are disadvantageous in that they can result in undesired bacteria and yeast growth on the cheese surface. (The paragraph bridging columns 1 and 2.)

It is respectfully submitted that the Examiner’s characterization of the disclosure of Candida is not accurate. However, even if one were to assume that the Examiner’s recitation of the disclosure in Candida et al. is appropriate, the rejection of claims 1 - 3 under 35 U.S.C. §102(b) is improper and should be withdrawn.

For a reference to be considered as anticipating the requirements of a claim under 35 U.S.C. §102(b), the reference must disclose all of the elements of the rejected claims. As such, one has to look at all of the elements of the claims.

Claim 1 is directed to a five-layer shrink film. The two outer layers are polyethylenic layers. Paragraphs 24, 25 and 30 in the specification, describe the properties of polyethylenic polymer and polyethylenic layer.

Additionally, the five-layer shrink film of claim 1 requires the presence of a core polystyrenic layer. In the Specification, paragraphs 21 and 22 describe the references to “polystyrenic polymer” and “polystyrenic layer.”

In addition to the above, the five-layer shrink film of Claim 1 includes two polystyrene compatibilizing layers. The Specification, for example in Paragraph 33, discloses that the term “polystyrene compatibilizing layer” refers to a layer of polymer composition that improves adhesion between two polymer layers, at least one of which is a polystyrenic layer. The layers improving adhesion are compared to those that act to reduce interfacial energy between two polymers. Further, Claim 1 includes the requirement that the compatibilizing layer comprise less than one percent by weight substantially random interpolymer. Substantially random interpolymers are described in the Specification, for example, in paragraph 32, and referred to polymers or copolymers as described in U.S. Patent 6,376,095 to Cheung et al. Cheung et al. describes the utilization of very specific polymers as substantially random interpolymers. For example, in column 7, in the paragraph beginning on line 9, the reference discloses that “the term “substantially random” (in the substantially random interpolymer comprising polymer units derived from one or more alpha-olefin monomers with one or more vinyl aromatic monomers and/or aliphatic or cycloaliphatic vinyl or vinylidene monomers) as used herein, means that the distribution of the monomers of said interpolymer can be described by the Bernoulli statistical model...” These specific polymers do not contain more than 15% of the total amount of vinyl aromatic monomer in blocks of vinyl aromatic monomer of more than three units. Cheung et al. goes on to describe specific vinyl aromatic monomers that can be used in the “substantially random interpolymer” as described therein.

It is not clear which part of the Candida et al. reference is relied on by the Examiner to disclose the utilization of two polystyrene compatibilizing layers let alone that the compatibilization is achieved through improved adhesion between two polymer layers. Further, it is not clear where the Candida et al. disclosure makes any reference to the utilization of less than one percent by weight of a substantially random interpolymer made in accordance with Cheung et al. It should be noted that the Cheung et al. reference claims priority from an original provisional patent application file on June 11, 1998, while the Candida et al. reference was filed on July 13, 1987.

For the reasons stated above, it is respectfully submitted that the rejection of Claims 1 –3 under 35 U.S.C. §102(b) as being anticipated by Candida et al. is erroneous and should be withdrawn.

The Examiner rejected Claims 1 –3 under 35 U.S.C. §102(b) as being anticipated by Childress (U.S. Patent 6,479,138). The Examiner states that Childress discloses a five-layer, low-shrink tension film comprising core layer of ethylene/styrene copolymer, having styrene content between 61 and 85 wt % (column 7, lines 20-27), outer layers of ethylene/alpha-olefin copolymer, such as ethylene octene copolymers having octene content of 9 wt % (column 9, A7; column 10, A20 etc.) and intermediate layers of adhesive such as ethylene/vinyl acetate copolymers, a blend of very low density polyethylene, and ethylene vinyl acetate copolymer, etc. (column 7, line 65 to column 8, line 8). The Childress reference is directed to what is known in the art as “soft-shrink” films. These films offer relatively high free shrink combined with relatively low shrink tension. The Childress reference is directed to a particular composition in each of the layers wherein the low shrink tension is achieved within certain defined parameters.

Even assuming that the Examiner’s characterization of the Childress reference is accurate, it is not clear which part of the disclosure is being relied on by the Examiner to teach the utilization of two layers that are defined as polystyrene compatibilizing layers improving adhesion between the two polymer layers. Further, it is not clear where the Childress reference teaches the utilization of a substantially random interpolymers made in accordance with the disclosure of Cheung et al., in each of the polystyrene compatibilizing layers. Further, there is no teaching in Childress of any limitation on the content of such substantially random interpolymers.

Accordingly, it is respectfully submitted that the rejection of Claims 1 – 3 under 35 U.S.C. §102(b) as being anticipated by Childress is erroneous and should be withdrawn.

Neither Childress nor Candida et al. teach all of the elements as recited in Claim 1. Claims 2 and 3 are dependent on Claim 1 and this same reasoning would apply to these claims.

The Examiner rejected Claims 1 to 8, 25 and 26 under 35 U.S.C. §103(a) as being unpatentable over Childress. The Examiner makes the assertion that given the teaching of Childress, a person of ordinary skill in the art at the time of this invention “would have found it obvious to optimize physical properties of a multilayer film by varying composition and proportion of individual layer for the given applications.” It is not clear how this reasoning can be applied to a §103(a) rejection. The standard is that there should be some motivation to vary the teachings of a reference. Using the examiner’s own comments, it is clear that Childress fails to disclose the claimed proportions of our layers and claim composition of intermediate layers.

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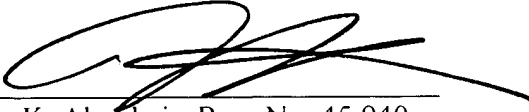
Considering the detailed and extensive disclosure in Childress, it is not clear how one would modify the teachings of Childress in order to come up with the presently claimed invention. The only way to modify Childress is to use hindsight reconstruction from the teachings of the present application. This is not allowed under 35 U.S.C. §103(a). As such, it is respectfully submitted that this rejection is an error and should be withdrawn.

Further, Childress does not include any teaching relative to the required two polystyrene compatibilizing layers nor to the utilization of substantially random interpolymers (made in accordance with Cheung et al.). Accordingly, it is respectfully submitted that the rejection under 35 U.S.C. §103(a) should be withdrawn.

For all of the reasons stated above, it is respectfully submitted that the elected claims are in condition for allowance, and notification thereof is respectfully requested. Should the Examiner have any questions regarding this response, the Examiner is encouraged to contact the undersigned at the listed phone number.

Respectfully submitted,

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